

# Psychological Bulletin

LLOYD G. HUMPHREYS, Editor  
*University of Illinois*

WARREN TORGERSON, Associate Editor  
*Johns Hopkins University*

## CONSULTING EDITORS

ROBERT ABELSON  
*Yale University*

GEORGE BRIGGS  
*Ohio State University*

TOM N. CORNSWEET  
*Stanford Research Institute,  
Menlo Park, California*

D. E. DULANY  
*University of Illinois*

BERT GREEN  
*Carnegie Institute of Technology*

DAVID M. GREEN  
*University of Pennsylvania*

WILLIAM L. HAYS  
*University of Michigan*

LYLE V. JONES  
*University of North Carolina*

JEROME KAGAN  
*Harvard University*

HERSHEL W. LEIBOWITZ  
*Pennsylvania State University*

FRANK LOGAN  
*University of New Mexico*

FREDERIC M. LORD  
*Educational Testing Service*

DAVID T. LYKKEN  
*University of Minnesota*

WILLIAM MCGILL  
*Columbia University*

WILLIAM J. MC GUIRE  
*Center for Advanced Study in the  
Behavioral Sciences, Stanford, California*

SAMUEL MESSICK  
*Educational Testing Service*

BENNET B. MURDOCK, JR.  
*University of Toronto*

WARREN T. NORMAN  
*University of Michigan*

FRANK RESTLE  
*Indiana University*

H. ENGER ROSVOLD  
*National Institute of Mental Health*

KEITH SMITH  
*University of Michigan*

PATRICIA CAIN SMITH  
*Cornell University*

I. D. STEINER  
*University of Illinois*

LEONARD ULLMANN  
*University of Illinois*

ROBERT D. WIRT  
*University of Minnesota*

---

## VOLUME 65, 1966

---

HELEN ORR  
*Managing Editor*

JOYCE ARDALE  
*Technical Editor*

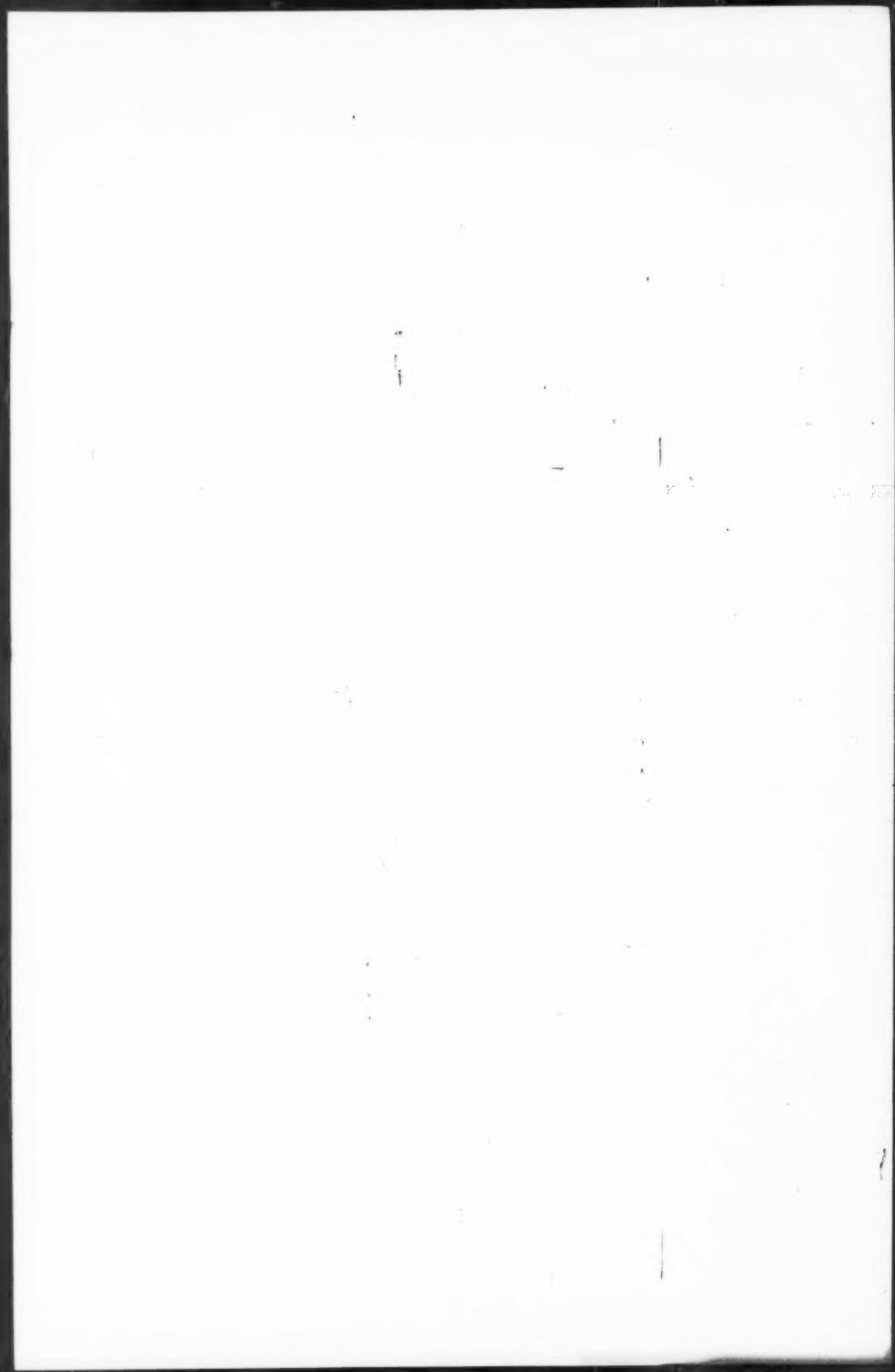
HENRY S. SALMON  
*Advertising and Business Manager*

ROBERT D. GORMAN  
*Subscription Manager*

PUBLISHED MONTHLY BY  
THE AMERICAN PSYCHOLOGICAL ASSOCIATION, INC.

1200 SEVENTEENTH ST. N. W.  
WASHINGTON, D. C. 20036

© 1966 by the American Psychological Association, Inc.



## CONTENTS OF VOLUME 65

AFTANAS, M. See ROYCE, J. R.	
ANNIN, EDITH L., AND BORING, EDWARD G. Psychological Necrology (1953-1964) .....	193
BLUMENTHAL, A. See ROYCE, J. R.	
BORING, EDWARD G. See ANNIN, EDITH L.	
BREGER, LOUIS, AND MCGAUGHEY, JAMES L. Learning Theory and Behavior Therapy: A Reply to Rachman and Eysenck .....	170
BROVERMAN, DONALD M. See VOGEL, WILLIAM.	
BROVERMAN, DONALD M. See VOGEL, WILLIAM.	
BROWN, JOHN S. See GYR, JOHN W.	
BUCK, LESLIE. Reaction Time as a Measure of Perceptual Vigilance .....	291
CARRAN, A. B. See ROYCE, J. R.	
CLARK, W. CRAWFORD. The <i>Psyche</i> in Psychophysics: A Sensory-Decision Theory Analysis of the Effect of Instructions on Flicker Sensitivity and Response Bias .....	358
CLIFTON, RACHEL KEEN. See GRAHAM, FRANCES K.	
COLES, E. M. See MONTAGU, J. D.	
DRAGUNS, JURIS G. See VOGEL, WILLIAM.	
EKSTRAND, BRUCE R. Backward Associations .....	50
ELLINGSON, ROBERT J. Relationship between EEG and Test Intelligence: A Commentary .....	91
ENDLER, NORMAN S., AND HUNT, J. McV. Sources of Behavioral Variance as Measured by the S-R Inventory of Anxiousness .....	336
EYSENCK, H. J. See RACHMAN, S.	
FELDMAN, M. P. Aversion Therapy for Sexual Deviations: A Critical Review .....	65
GRAHAM, FRANCES K., AND CLIFTON, RACHEL KEEN. Heart-Rate Change as a Component of the Orienting Response .....	305
GREENWALD, ANTHONY G. Nuttin's Neglected Critique of the Law of Effect .....	199
GYR, JOHN W., BROWN, JOHN S., WILLEY, RICHMOND, AND ZIVIAN, ARTHUR. Computer Simulation and Psychological Theories of Perception .....	174
HAMMOND, KENNETH R., WILKINS, MARILYN M., AND TODD, FREDERICK J. A Research Paradigm for the Study of Interpersonal Learning .....	221
HIMELSTEIN, PHILIP. Research with the Stanford-Binet, Form L-M: The First Five Years ..	156
HUNT, J. McV. See ENDLER, NORMAN S.	
KEISLER, DONALD J. Some Myths of Psychotherapy Research and the Search for a Paradigm .	110
KING, DONALD LEE. A Review and Interpretation of Some Aspects of the Infant-Mother Relationship in Mammals and Birds .....	143
KLAIBER, EDWARD L. See VOGEL, WILLIAM.	
LEFCOURT, HERBERT M. Internal versus External Control of Reinforcement: A Review .....	206
LEHMAN, R. S. See ROYCE, J. R.	
MARASCULO, LEONARD A. Large-Sample Multiple Comparisons .....	280
MARTIN, IRENE, AND VENABLES, P. H. Mechanisms of Palmar Skin Resistance and Skin Potential .....	347
MCGAUGHEY, JAMES L. See BREGER, LOUIS.	
MONTAGU, J. D., AND COLES, E. M. Mechanism and Measurement of the Galvanic Skin Response .....	261
PEABODY, DEAN. Authoritarianism Scales and Response Bias .....	11
PLATT, JOHN R. See SPENCE, KENNETH W.	
POSTMAN, LEO. Reply to Greenwald .....	383
RACHMAN, S., AND EYSENCK, H. J. Reply to a "Critique and Reformulation" of Behavior Therapy .....	165
REEVES, CAROL. Cholinergic Synaptic Transmission and its Relationship to Behavior .....	321
ROYCE, J. R., CARRAN, A. B., AFTANAS, M., LEHMAN, R. S., AND BLUMENTHAL, A. The Autokinetic Phenomenon: A Critical Review .....	243
SAUGSTAD, PER. Effect of Food Deprivation on Perception-Cognition .....	80
SPENCE, JANET T. See SPENCE, KENNETH W.	
SPENCE, KENNETH W., AND PLATT, JOHN R. UCS Intensity and Performance in Eyelid Conditioning .....	137
SPENCE, KENNETH W., AND SPENCE, JANET T. Sex and Anxiety Differences in Eyelid Conditioning .....	233
TAYLOR, INSUP K. What Words Are Stuttered? .....	

CONTENTS OF VOLUME 65

TODD, FREDERICK J. See HAMMOND, KENNETH R.	
VENABLES, P. H. See MARTIN, IRENE.	
VOGEL, WILLIAM, AND BROVERMAN, DONALD M. A Reply to "Relationship between EEG and Test Intelligence: A Commentary" .....	59
VOGEL, WILLIAM, BROVERMAN, DONALD M., DRAGUNS, JURIS G., AND KLAIBER, EDWARD L. The Role of Glutamic Acid in Cognitive Behaviors .....	367
WARREN, JONATHAN R. Birth Order and Social Behavior .....	38
WEINER, BERNARD. Effects of Motivation on the Availability and Retrieval of Memory Traces .....	24
WILKINS, MARILYN M. See HAMMOND, KENNETH R.	
WILLEY, RICHMOND. See GYR, JOHN W.	
ZIVIAN, ARTHUR. See GYR, JOHN W.	

# Psychological Bulletin

LLOYD G. HUMPHREYS, Editor  
*University of Illinois*

WARREN TORGERSON, Associate Editor  
*Johns Hopkins University*

## CONSULTING EDITORS

ROBERT ABELSON  
*Yale University*

GEORGE BRIGGS  
*Ohio State University*

TOM N. CORNSWEET  
*Stanford Research Institute,  
Menlo Park, California*

D. E. DULANY  
*University of Illinois*

BERT GREEN  
*Carnegie Institute of Technology*

DAVID M. GREEN  
*University of Pennsylvania*

WILLIAM L. HAYS  
*University of Michigan*

LYLE V. JONES  
*University of North Carolina*

JEROME KAGAN  
*Harvard University*

HERSHEL W. LEIBOWITZ  
*Pennsylvania State University*

FRANK LOGAN  
*University of New Mexico*

FREDERIC M. LORD  
*Educational Testing Service*

DAVID T. LYKKEN  
*University of Minnesota*

WILLIAM MCGILL  
*Columbia University*

WILLIAM J. MCGUIRE  
*Center for Advanced Study in the  
Behavioral Sciences, Stanford, California*

SAMUEL MESSICK  
*Educational Testing Service*

BENNET B. MURDOCK, JR.  
*University of Toronto*

WARREN T. NORMAN  
*University of Michigan*

FRANK RESTLE  
*Indiana University*

H. ENGER ROSVOLD  
*National Institute of Mental Health*

KEITH SMITH  
*University of Michigan*

PATRICIA CAIN SMITH  
*Cornell University*

I. D. STEINER  
*University of Illinois*

LEONARD ULLMANN  
*University of Illinois*

ROBERT D. WIRT  
*University of Minnesota*

PHILIP G. ZIMBARDO  
*New York University*

---

## VOLUME 66, 1966

---

HELEN ORR  
*Managing Editor*

JOYCE ARDALE  
*Technical Editor*

HENRY S. SALMON  
*Advertising and Business Manager*

ROBERT D. GORMAN  
*Subscription Manager*

PUBLISHED MONTHLY BY  
THE AMERICAN PSYCHOLOGICAL ASSOCIATION, INC.

1200 SEVENTEENTH ST. N. W.

WASHINGTON, D. C. 20036

© 1966 by the American Psychological Association, Inc.

#### ACKNOWLEDGMENT

To the following persons who have aided in reaching decisions concerning manuscripts submitted for publication during the past year the Editor extends his thanks and appreciation:

MATHEW ALPERN  
*University of Michigan*

ROBERT B. MALMO  
*McGill University*

GEORGE BARLOW  
*University of California, Berkeley*

RICHARD SOLOMON  
*University of Pennsylvania*

BYRON CAMPBELL  
*Princeton University*

H. C. TRIANDIS  
*University of Illinois*

ROBERT EDELBURG  
*University of Oklahoma Medical Center*

ARTHUR E. WHIMBEY  
*University of Illinois*

LLOYD G. HUMPHREYS, Editor

## CONTENTS OF VOLUME 66

ANDERSON, HARRY E., JR., AND BASHAW, W. L. Further Comments on the Internal Structure of the MMPI .....	211
ANDREWS, JOHN D. W. Psychotherapy of Phobias .....	455
ATKINSON, R. C. See GROEN, G. J.	
BAKAN, DAVID. The Test of Significance in Psychological Research .....	423
BASHAW, W. L. See ANDERSON, HARRY E., JR.	
BRESNAHAN, JEAN L., AND SHAPIRO, MARTIN M. A General Equation and Technique for the Exact Partitioning of Chi-Square Contingency Tables .....	252
DAVIS, GARY A. Current Status of Research and Theory in Human Problem Solving .....	36
DAWES, ROBYN MASON, AND MEEHL, PAUL E. Mixed Group Validation: A Method for Determining the Validity of Diagnostic Signs without Using Criterion Groups .....	63
DOHERTY, MICHAEL E. Response Bias and Murdock's D Scale .....	289
DUNNETTE, MARVIN D. See OPSAHL, ROBERT L.	
EDGINGTON, EUGENE S. Statistical Inference and Nonrandom Samples .....	485
FARNSWORTH, KIRK E. Application of Scaling Techniques to the Evaluation of Counseling Outcomes .....	81
FONTANA, ALAN F. Familial Etiology of Schizophrenia: Is a Scientific Methodology Possible? 214	
FORMAN, VIRGINIA P. See HOLZMAN, MATHILDA S.	
FRANK, GEORGE H. See GUERTIN, WILSON H.	
FREEMAN, P. R. See POULTON, E. C.	
GAMPEL, DOROTHY HUBBARD. Data Parallels across Behavioral Systems .....	499
GANZ, LEO. Is the Figural Aftereffect an Aftereffect? A Review of Its Intensity, Onset, Decay, and Transfer Characteristics .....	151
GARDNER, R. ALLEN. On Box Score Methodology as Illustrated by Three Reviews of Over-training Reversal Effects .....	416
GREEN, DAVID M., AND MOSES, FRANKLIN L. On the Equivalence of Two Recognition Measures of Short-Term Memory .....	228
GRICE, G. ROBERT. Dependence of Empirical Laws upon the Source of Experimental Variation .....	488
GROEN, G. J., AND ATKINSON, R. C. Models for Optimizing and Learning Process .....	309
GUERTIN, WILSON H., LADD, CLAYTON E., FRANK, GEORGE H., RABIN, ALBERT I., AND HIESTER, DOUGLAS S. Research with the Wechsler Intelligence Scales for Adults: 1960-1965 .....	385
HIESTER, DOUGLAS S. See GUERTIN, WILSON H.	
HIGGINS, JERRY, AND PETERSON, JUDITH C. Concept of Process-Reactive Schizophrenia: A Critique .....	201
HILL, KENNEDY, T. See STEVENSON, HAROLD W.	
HOLZMAN, MATHILDA S., AND FORMAN, VIRGINIA P. A Multidimensional Content-Analysis System Applied to the Analysis of Therapeutic Technique in Psychotherapy with Schizophrenic Patients .....	263
JOHNSON, DONALD M. Solution of Anagrams .....	371
JUNG, JOHN. Experimental Studies of Factors affecting Word Associations .....	125
KATZ, EVELYN WALKER. A Content-Analytic Method for Studying Themes of Interpersonal Behavior .....	419
KENDLER, HOWARD H., AND KENDLER, TRACY S. Selective Attention versus Mediation: Some Comments on Mackintosh's Analysis of Two-Stage Models of Discrimination Learning ...	282
KENDLER, TRACY S. See KENDLER, HOWARD H.	
KINSLINGER, HOWARD J. Application of Projective Techniques in Personnel Psychology since 1940 .....	134
KLINGER, ERIC. Fantasy Need Achievement as a Motivational Construct .....	291
LADD, CLAYTON E. See GUERTIN, WILSON H.	
LUTHER, B. See LYKKEN, D. T.	
LYKKEN, D. T., ROSE, R., LUTHER, B., AND MALEY, M. Correcting Psychophysiological Measures for Individual Differences in Range .....	481
MALEY, M. See LYKKEN, D. T.	
MEEHL, PAUL E. See DAWES, ROBYN MASON.	
MENDELSON, GERALD A. See PITTEL, SEPHEN, M.	
MOSES, FRANKLIN L. See GREEN, DAVID M.	

**CONTENTS OF VOLUME 66**

MUKHERJEE, BISHWA NATH. Application of Canonical Correlational Analysis to Learning Data .....	9
MULAIK, STANLEY A. Inferring the Communality of a Variable in a Universe of Variables .....	119
MURCH, GERALD M., AND WESLEY, FRANK. German Psychology and Its Journals .....	410
OPSAHL, ROBERT L., AND DUNNETTE, MARVIN D. The Role of Financial Compensation in Industrial Motivation .....	94
PETERSON, JUDITH C. See HIGGINS, JERRY.	
PITTEL, STEPHEN M., AND MENDELSON, GERALD A. Measurement of Moral Values: A Review and Critique .....	22
POULTON, E. C., AND FREEMAN, P. R. Unwanted Asymmetrical Transfer Effects with Balanced Experimental Designs .....	1
PRICE, RICHARD H. Signal-Detection Methods in Personality and Perception .....	55
PUGH, D. S. Modern Organization Theory: A Psychological and Sociological Study .....	235
RABIN, ALBERT I. See GUERTIN, WILSON H.	
ROSE, R. See LYKKEN, D. T.	
RUNDQUIST, EDWARD A. Item and Response Characteristics in Attitude and Personality Measurement: A Reaction to L. G. Rorer's "The Great Response-Style Myth" .....	166
SAWYER, JACK. Measurement and Prediction, Clinical and Statistical .....	178
SHAPIRO, MARTIN M. See BRESNAHAN, JEAN L.	
SILVERSTEIN, ALBERT. The "Grubo" Psychology: Or Can a Science over 95 Be Happy without Reductionism? .....	207
STEVENSON, HAROLD W., AND HILL, KENNEDY T. Use of Rate as a Measure of Response in Studies of Social Reinforcement .....	321
TIGHE, LOUISE S., AND TIGHE, THOMAS J. Discrimination Learning: Two Views in Historical Perspective .....	353
TIGHE, THOMAS J. See TIGHE, LOUISE S.	
TREISMAN, MICHEL, AND WATTS, T. R. Relation between Signal Detectability Theory and the Traditional Procedures for Measuring Sensory Thresholds: Estimating $d'$ from Results Given by the Method of Constant Stimuli .....	438
VANDENBERG, STEVEN G. Contributions of Twin Research to Psychology .....	327
WATTS, T. R. See TREISMAN, MICHEL.	
WESLEY, FRANK. See MURCH, GERALD M.	
WIGGINS, NANCY. Individual Viewpoints of Social Desirability .....	68
ZUCKERMAN, MARVIN. Save the Pieces! A Note on "The Role of the Family in the Development of Psychopathology." .....	78

